

GUJARAT TECHNOLOGICAL UNIVERSITY
B.Ph. - SEMESTER– V EXAMINATION – SUMMER -2025

Subject Code:2250006**Date:08/05/2025****Subject Name: PHARMACOGNOSY - III****Time:02:30PM TO 05:30PM****Total Marks: 80****Instructions:**

1. Attempt any five questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

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|-------------|---|-----------|
| Q.1 | (a) Define plant tissue culture and enlist the applications of plant tissue culture. | 06 |
| | (b) Write the biological source, chemical constituents of drugs containing cyanogenetic glycosides. | 05 |
| | (c) Write the biological source, chemical constituents and substitutes of Brahmi. | 05 |
| Q.2 | (a) Enlist the types of tissue culture and write a short note on callus culture. | 06 |
| | (b) Write in detail the uses of Arjuna, Chirata and Gymnema. | 05 |
| | (c) What is the procedure and observation in Keller Killiani test, Legal test and Baljet test. | 05 |
| Q.3 | (a) Enlist the saponin containing drugs. Write a short note on collection and cultivation of Satavari. | 06 |
| | (b) Differentiate Cardenolides from Bufadienolides. | 05 |
| | (c) Before using Cascara bark it should be stored for at least one year. Comment. | 05 |
| Q.4 | (a) Write the biological source, chemical constituents, substituents and adulterants of Senna. | 06 |
| | (b) How is diosgenin isolated from Dioscorea? | 05 |
| | (c) Write a short note on suspension culture. | 05 |
| Q.5 | (a) Define (i) Explant (ii) Callus (iii) De-differentiation (iv) Re-differentiation (v) Totipotency (vi) Sub-culturing | 06 |
| | (b) Mention the adulterants of almond describing its morphology and chemical constituents. | 05 |
| | (c) Write the biological source, chemical constituents and collection of Butea and Bhilama. | 05 |
| Q. 6 | (a) Write the biological source, chemical constituents of Isothiocyanate glycosides. | 06 |
| | (b) What are the uses of Liquorice? Which chemical constituents are responsible for its various pharmacological activities? | 05 |
| | (c) Write a short note on hairy root culture. | 05 |
| Q.7 | (a) Which are the biological sources of Gokhru? Give its uses, chemical constituents and agronomy. | 06 |
| | (b) Write the biological source, chemical constituents and uses of Salix. | 05 |
| | (c) Enlist the basic requirements of plant tissue culture. What is a BOD incubator? | 05 |
